Appl. No. 10/648,687

Amendments to the Specification

Please add the following new sentence to the paragraph ending on line 17 on page 38:

enhanced edge-on strip detectors) is decreased (along with detection efficiency). Note that the readout requirements in terms of sources of noise and event localization will depend on whether adjacent detector planes butt (continuous or strip) anodes or cathodes as shown in Fig. 1, both anodes and cathodes, or neither as shown in Fig. 11.

Please add the following new sentence following the sentence on line 19 on page 39 ending with "diffusion may require consideration.":

diffusion may require consideration. <u>Yet another method to compensate for poor hole mobility and determine sub-aperture resolution is to accurately measure the pulse rise time and pulse shape.</u>